



Lake Mead National Recreation Area Environmental Education

CLASSROOM PROGRAM

Grade 1 “Cactus Clues”

THEME	Cacti have adaptations that make them different from other desert plants.
OBJECTIVES	<p>Students will name three parts of a plant.</p> <p>Students will compare at least one difference between a cactus and another desert plant.</p> <p>Students will use a simple cactus key as a tool for identifying at least one cactus common to Lake Mead National Recreation Area.</p>
VOCABULARY	<p>adaptation - a physical or behavioral feature of an animal or plant that helps it survive in its environment</p> <p>botany - the science of the study of plants</p> <p>cactus - a plant with fleshy stems and branches and with scales or spines instead of leaves</p> <p>spine - a modified leaf</p>



BACKGROUND INFORMATION

Desert conditions such as little rainfall (average 4 to 6 inches annually), high temperatures in the summer, and wind make it difficult for many plants to survive. Plants living in this environment have adapted over time to deal with these harsh conditions. Studying the adaptations of a cactus can be especially interesting. They store moisture in their stems and have spines that are modified leaves. Photosynthesis takes place within the green stem instead of in green leaves as on other plants.

Lake Mead National Recreation Area is home to a variety of cacti that share these characteristics, but each species can be very different upon closer investigation. By using a simple cactus key, the differences between species becomes much more obvious, even to a novice botanist!

BEFORE THE RANGER VISITS YOUR CLASSROOM

Take a walk outside with your students to compare the leaves and stems of two different plants. Together make a list of the similarities and differences that the students can explore through smell, touch, and color.

AFTER THE RANGER VISITS YOUR CLASSROOM

Now that your students are Junior Botanists, have them create their own cactus. Can they come up with a name that will describe their own cactus? Display their art work in a "botany" corner along with other projects you're currently working on.

REFERENCES

MacMahon, James A., *Deserts*
Alfred A. Knopf, (1986)

Nelson, Richard and Sharon, *Easy Field Guide to
Common Desert Cactus*
Primer Publishers, (1996)

Peterson, Carol, *Mojave Desert Discovery*,
National Park Service, (1994)



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